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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/813,957	03/31/2004	R. Scott Stephens	WEYE122661/25487	5876
28624 7590 07/10/2007 WEYERHAEUSER COMPANY INTELLECTUAL PROPERTY DEPT., CH 1J27 P.O. BOX 9777 FEDERAL WAY, WA 98063			EXAMINER CORDRAY, DENNIS R	
			ART UNIT 1731	PAPER NUMBER
			NOTIFICATION DATE 07/10/2007	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patents@weyerhaeuser.com

Office Action Summary

Application No.

10/813,957

Applicant(s)

STEPHENS ET AL.

Examiner

Dennis Cordray

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 May 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's amendments and arguments filed 5/7/2007 have failed to overcome the prior art rejections. However, the rejections have been modified to reflect "individualized, whitened crosslinked cellulosic fibers."

Applicant argues that Cook et al does not disclose treating fibers with a whitening agent that comprises one or more dyes.

The rejection of Claims 1, 6-8 and 17-19 under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Cook et al as evidenced by Farr et al is based on the product-by-process language of the claims.

From MPEP 2113:

"[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

"The Patent Office bears a lesser burden of proof in making out a case of prima facie obviousness for product-by-process claims because of their peculiar nature" than when a product is claimed in the conventional fashion. In re Fessmann, 489 F.2d 742, 744, 180 USPQ 324, 326 (CCPA 1974). Once the examiner provides a rationale tending to show that the claimed product appears to be the same or similar

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to that of the prior art, although produced by a different process, the burden shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product. In re Marosi, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir. 1983)

"[T]he lack of physical description in a product-by-process claim makes determination of the patentability of the claim more difficult, since in spite of the fact that the claim may recite only process limitations, it is the patentability of the product claimed and not of the recited process steps which must be established. We are therefore of the opinion that when the prior art discloses a product which reasonably appears to be either identical with or only slightly different than a product claimed in a product-by-process claim, a rejection based alternatively on either section 102 or section 103 of the statute is eminently fair and acceptable. As a practical matter, the Patent Office is not equipped to manufacture products by the myriad of processes put before it and then obtain prior art products and make physical comparisons therewith." In re Brown, 459 F.2d 531, 535, 173 USPQ 685, 688 (CCPA 1972).

The product of the rejected claims is individualized, whitened crosslinked cellulosic fluff pulp fibers. Cook et al discloses individualized, whitened crosslinked cellulosic fluff pulp fibers, which appear to be the same product as the claimed fibers, although produced by a different process. The Applicant has not shown evidence that the claimed process results in a different product from that disclosed by Cook et al.

Applicant argues on pp 7-8 that Westland et al does not describe individualized, crosslinked cellulosic fibers, but a web of crosslinked fibers. Applicant argues that there

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is no teaching, suggestion or motivation to combine the teachings of Cook et al with the teachings of Westland et al.

Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so. In re Kahn, 441 F.3d 977, 986, 78 USPQ2d 1329, 1335 (Fed. Cir. 2006) (discussing rationale underlying the motivation-suggestion-teaching requirement as a guard against using hindsight in an obviousness analysis). The teaching, suggestion, or motivation must be found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. "The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art." In re Kotzab, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000)

Westland teaches that it is known in the art to treat fibers with a dye and a crosslinking agent and to subsequently crosslink the fibers. Casey et al and Biermann teach that it is well known in the art to add a blue dye to pulp as a whitening agent to offset the tendency for pulp to be yellow, and provide the motivation to do so, customer preference to a blue-white color over a yellow-white color. The yellowing of fibers crosslinked with citric acid is well known in the art. Cook et al teaches that bleaching crosslinked fibers improves the brightness, and also whiteness since bleaching is known to improve whiteness. The references teach only knowledge generally available to one of ordinary skill in the art.

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Both bleaching and addition of blue dyes are thus well known to those of ordinary skill in the art to counteract yellowing and whiten cellulosic fibers. "It is prima facie obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose.... [T]he idea of combining them flows logically from their having been individually taught in the prior art." In re Kerkhoven, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980).

A similar flow of logic is applicable in the current case. Combining the two processes, bleaching and addition of a blue dye whitening agent, each of which is taught by the prior art to be useful for whitening cellulosic fibers, would therefore have been obvious to one of ordinary skill in the art.

The rejections are maintained.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 6-8 and 17-19 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Cook et al (5562740) as evidenced by Farr et al ("Bleaching Agents" Kirk-Othmer Encyclopedia of Chemical Technology, V.4, p 43).

Cook et al discloses individualized crosslinked cellulosic fibers and a process for making the fibers comprising: applying a citric acid crosslinking agent and a crosslinking catalyst to a web of fibers, separating the web into individualized fibers, heating the individualized fibers to provide individualized crosslinked fibers, and bleaching the crosslinked fibers using hydrogen peroxide and sodium hydroxide. (abstract; col 13, lines 22-25). Cook et al discloses that sodium hypophosphite is used as a crosslinking catalyst (col 12, lines 7-12 and 28-30). The fibers are preferably mechanically defibrated into a fibrous form known as "fluff" prior to reaction of the crosslinking agent with the fibers (col 8, lines 42-44), thus are fluff pulp. Cook et al further discloses that the fibers can be used to form absorbent products such as diapers, feminine care products, and tissues (col 17, lines 30-35).

Cook et al teaches that the citric acid crosslinking agent can cause discoloring (i.e., yellowing) of the white cellulosic fibers when treated at elevated temperatures and result in unpleasant odors (col 3, lines 33-40). Cook et al discloses that bleaching improves the product brightness and reduces odor (col 3, lines 41-52).

A bleaching agent whitens a substrate by chemical reaction (for evidence, see Farr et al, p 43, subtopic "Introduction"), thus bleached pulps are whiter than

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unbleached pulps. The bleached fluff pulp of Cook et al therefore comprises individualized, whitened crosslinked cellulosic fluff pulp fibers.

Claims 1, 6-8 and 17-19 are product-by-process claims. The product of Cook et al appears to be the same as or similar to the claimed product, individualized, whitened crosslinked cellulosic fluff pulp fibers, although produced by a different process. The burden therefore shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product. In re Marosi, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir.1983). "In the event any differences can be shown for the product of the product-by-process claims 1, 5 and 12-14 as opposed to the product taught by the reference Cook et al, such differences would have been obvious to one of ordinary skill in the art as a routine modification of the product in the absence of a showing of unexpected results: see also In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985)"

3. Claims 1- 3, 6-10 and 13-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cook et al in view of Casey (Pulp and Paper Chemistry and Chemical Technology, 3rd ed, vol III, John Wiley & sons, 1981) and Biermann (Essentials of Pulping and Papermaking, Academic Press, Inc., 1993), and further in view of Westland et al (6300259).

The disclosure of Cook et al is as above.

Cook does not disclose the use of a whitening agent comprising one or more dyes. Cook et al also does not disclose that the treated fluff pulp is whiter than untreated fluff pulp.

Casey et al teaches that paper can be whitened by adding a blue dye because the dye is complementary to the natural yellow tint of pulp (p 1833, last par bridging to p 1834). Although the addition of a dye reduces total reflectance, Casey teaches that yellowness is about four times as important to the visual perception of whiteness than total reflectance (p 1835, 2nd full par), thus a reduction of yellowness and an increase in whiteness is achieved by adding a blue dye. The blue dye can be added as a surface treatment or to the stock (par spanning pp 1834-1835). Casey also teaches that a small amount of blue dye or blue pigment is often added to the stock (which comprises the pulp fibers) and results in a pleasant effect because the average person prefers a blue-white to a yellowish white (p 1835, next to last par), motivation is provided to whiten the fibers using a blue dye. Thus the use of a whitening agent to whiten pulp is well known to those of ordinary skill in the art.

Biermann teaches that blue dye is often added to pulp to offset the tendency for pulp to be yellow (p 197, left col, 2nd par), thus the use of a whitening agent to whiten pulp is well known to those of ordinary skill in the art.

Westland et al discloses a method of forming a crosslinkable cellulosic fibrous product comprising applying a crosslinking agent to a mat of cellulosic fibers, drying the mat so that no crosslinking occurs, separating the mat into individualized treated fibers, incorporating the individualized fibers into a fibrous web and heating the web to affect

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crosslinking (col 5, line 34 to col 6, line 6). Pretreatment or post treatment of the fibers with a dye is also disclosed (col 3, lines 8-12). Cellulosic fibers treated with a dye and a crosslinking agent, separated into individualized form and subsequently heated to provide crosslinking are thus known to one of ordinary skill from prior art.

The art of Cook et al, Casey, Biermann, Westland et al and the instant invention are analogous in that they are from the art of dyeing and bleaching cellulosic fibers. It would have been obvious at the time the invention was made to a person with ordinary skill in the art to add a blue dye to the fibers to increase whiteness of the fibrous product in the process of Cook et al in view of Casey and Biermann and further in view of Westland et al to make the product more preferable to customers. Whether the fibers are fluff pulp (mechanically defibrated into a low density individualized fibrous form known as "fluff" as taught by Cook et al) or papermaking fibers, they are cellulosic fibers, and it would have been obvious to one of ordinary skill in the art to obtain increased whiteness of the fibers, and therefore of crosslinked fluff pulp, over untreated fibers or fluff pulp.

Both bleaching and addition of blue dyes are known to those of ordinary skill in the art to counteract yellowing in and thus whiten cellulosic fibers. From MPEP 2144.06:

"It is prima facie obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose.... [T]he idea of combining

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them flows logically from their having been individually taught in the prior art." In re Kerkhoven, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980).

Combining the two processes, bleaching or addition of a whitening agent, such as a blue dye, for the same purpose would therefore have been obvious to one of ordinary skill in the art.

4. Claims 4-5 and 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cook et al in view of Casey, Biermann, and Westland et al as applied to claims 1-3 and 9-11 above, and further in view of Chudgar ("Dyes, Azo" Kirk-Othmer Encyclopedia of Chemical Technology) and von der Eltz et al (5512064).

Cook et al, Casey, Biermann, Westland et al and von Raven do not disclose the use of an azo metal complex dye as a blue dye.

Chudgar teaches that azo dyes are the largest class of organic dyes and are widely used in the textile and paper industries (Introduction), thus are well known in the art. Von der Eltz et al teaches that azo dyes and azo metal complex dyes are well known art and are completely familiar to one skilled in the art (col 5, lines 10-19).

The art of Cook et al, Casey, Biermann, Westland et al, Chudgar, Von der Eltz et al and the instant invention are analogous and pertaining to dyes used for cellulosic fibers. In the absence of limiting parameters not revealed in the current disclosure it would have been obvious at the time the invention was made to a person with ordinary skill in the art to add a blue azo metal complex dye as a functionally equivalent option to the formed web to increase whiteness of the fibrous product in the process of Cook et al

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in view of Casey, Biermann and Westland et al and further in view of Chudgar and von der Eltz et al to make the product more preferable to customers.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims 1-19 provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-14 of copending Application No. 10/815159 in view of Cook et al and Farr et al ("Bleaching Agents" Kirk-Othmer Encyclopedia of Chemical Technology, John Wiley & Sons, 2003).

Although the conflicting claims are not identical, they are not patentably distinct from each other because the referenced claims of the instant invention are fully encompassed by the claims of the copending application.

Claim 1 of the copending application is a product by process claim and thus emphasizes the product, individualized, whitened crosslinked cellulosic fluff pulp fibers, which become the fibers claimed in the instant invention with the application of a bleaching agent. The language of Claim 1 of the copending application (i.e.-comprising)

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does not preclude the use of a bleaching agent. Cook et al teaches bleaching crosslinked fluff pulp to remove the yellowness caused by the crosslinking process and the bleaching agents used. Farr et al teaches that bleaching lightens or whitens a substrate through chemical reaction and that paper and pulp bleaching is a known process. It would have been obvious to one with ordinary skill in the art to modify Claim 1 of the copending application to include bleaching the claimed fibers of 10/815159 to improve the whiteness of the product as per the teachings of Cook et al and Farr et al.

Claims 3-6 of the instant invention read the same as claims 2-5 of the copending application after appropriate changes in the referenced claim numbers.

The language of Claim 6 of the copending application does not preclude the use of a bleaching agent as specified in Claim 9 of the instant invention and, other than the additional step in Claim 9 of applying a bleaching agent, the claims read identically. Neogi et al discloses that bleaching is a common method for increasing whiteness and that a whiter product is preferable to customers. It would have been obvious to one with ordinary skill in the art to modify Claim 6 of the copending application to include a bleaching step after crosslinking as per the teachings of Cook et al and Farr et al.

Claims 10-14 of the instant application read the same as Claims 7-11 of the copending application after appropriate changes in the referenced claim numbers.

Claims 17-19 of the instant application read the same as Claims 12-14 of the copending application after appropriate changes in the referenced claim numbers.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

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6. Claims 1-3 and 6 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 3, 6 and 7 of U. S. Patent No. 6893473 in view of Cook et al and Farr et al.

The instant Claims are directed to a product, individualized, whitened crosslinked cellulosic fluff pulp fibers treated with a whitening agent and a bleaching agent (Claim 1). The whitening agent is a blue dye (Claim 3). The fibers are citric acid crosslinked fibers (Claim 5).

The claims of U. S. Patent No. 6893473 are directed to a product, whitened fluff pulp comprising pulp fibers and a whitening agent (Claim 1). The Examiner considers fluff pulp to be individualized fibers. The fibers can be citric acid crosslinked fluff pulp (Claims 6-7). The whitening material is a blue dye (Claim 3).

The language of Claim 1 of the patent (i.e.-comprising) does not preclude the use of a bleaching agent. For the reasons given in the prior obviousness-type double patenting rejection, it would have been obvious to one with ordinary skill in the art to further treat the fibers claimed in U.S. Patent No. 6893473 by bleaching the fibers to improve the whiteness of the product as per the teachings of Cook et al and Farr et al.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within

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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dennis Cordray whose telephone number is 571-272-8244. The examiner can normally be reached on M - F, 7:30 -4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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